REMARKS

Claims 1, 2, 4-12, 14-22, and 24-28 remain in this application. Claims 1, 7, 11, 14, 15, 17, 19-21, 27, and 28 have been amended to define still more clearly what Applicants regard as their invention. Claims 3, 13, and 23 have been canceled without prejudice or disclaimer of subject matter. Claims 1, 7, 11, 17, 21, 27, and 28 are independent.

Applicants note with appreciation the indication that Claims 7, 17, and 27 would be allowable if rewritten so as not to depend from a rejected claim, and with no change in scope. Since the latter claims have been so rewritten, except for minor clarifications, they are now believed to be in condition for allowance.

A Claim To Priority and a certified copy of the priority document for this application were filed on May 7, 2001, as evidenced by the returned receipt postcard bearing the stamp of the Patent and Trademark Office, a copy of which is attached hereto. Applicants respectfully request acknowledgment of the claim for foreign priority and the receipt of the certified copy.

The title has been amended to read as follows: --INFORMATION PROCESSING METHOD, APPARATUS, AND STORAGE MEDIUM, FOR RECEIVING AND DECODING A CODE SEQUENCE OBTAINED BY ENCODING AN IMAGE--. Applicants respectfully submit that the title, as amended, is clearly indicative of the invention to which the claims are directed.

Claims 1-3, 8, 9, 11-13, 18, 19, 21-23, and 28 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent 5,812,788 to Agarwal. Claims 4-6, 10, 14-16,

20, and 24-26 were rejected under 35 U.S.C. § 103(a) as being obvious from Argarwal in view of U.S. Patent 6,603,884 to Matsuura et al.

First, cancellation of Claims 3, 13, and 23 renders the rejections of those claims moot.

Claim 1 is directed to an image processing apparatus for receiving and decoding a code sequence obtained by encoding an image. The apparatus includes decoding means, correction value selection means, dequantizing means, and inverse transforming means. The decoding means entropy-decodes the input code sequence to obtain quantization indices. The correction value selection means selects correction values among a plurality of correction values, used to correct the quantization indices decoded by the decoding means. The dequantizing means corrects the quantization indices using the correction values selected by the correction value selection means, in accordance with values of the quantization indices and generates a series of coefficient sequences by computing products of the corrected quantization indices and a quantization step. The inverse transforming means restores an image signal by executing a predetermined inverse transform manipulation of the coefficient sequences obtained by the dequantizing means.

Among the notable features of Claim 1 are that an input code sequence is decoded so as to obtain quantization indices, and correction values are selected for correcting the quantization indices. The quantization indices are corrected using the correction values before dequantization. The corrected quantization indices are multiplied by a quantization step, and a series of coefficient sequences is generated as a result of dequantization.

Agarwal, as understood by Applicants, relates to encoding/decoding video signals using quantization tables based on explicitly encoded base and scale matrices. Fig. 18, cited in the Office Action, shows a block diagram of the decode processing of step 1602 of Fig. 16 that is applied to the difference blocks of each encoded band of each inter-encoded frame of the encoded video bitstream. Huffman decoder 1802 applies statistical decoding to the encoded data for the current band to reconstruct the run-length encoded run/val data. Run-length decoder 1804 transforms the RLE data into quantized coefficients. Inverse quantizer 1806 dequantizes the quantized coefficients to generate dequantized coefficients. Inverse block transform 1808 applies the inverse of forward block transform 606 of Fig. 6 to the dequantized coefficients to generate decoded differences.

Fig. 19 shows a block diagram of the portion of inverse quantizer 1806 of Fig. 18 that decodes the encoded bitstream to generate the Q tables used in dequantizing the quantized coefficients recovered by run-length decoder 1804. Bitstream decoder 1902 recovers the base and scale matrices from the encoded bitstream, and Q-table generator 1004 uses those base and scale matrices to generate the Q tables. Referring again to Fig. 18, motion-compensated adder 1810 applies the decoded motion vectors to the reference band to generate motion-compensated reference band data, and performs inter-band addition using the motion-compensated reference band data and the decoded differences to generate the decoded data for the current band. The decoded band is then stored in memory 1812 for use as the reference band for decoding the corresponding band of another video frame. The decoded band is used to generate the decoded image for display.

Agarwal may discuss retrieving a first base matrix and a first scale matrix encoded into an encoded video stream, and generating a first set of quantization (Q) tables, and decoding a first set of encoded video signals using the first set of Q tables (see also column 44, line 63, to column 48, line 52). However, nothing has been found in Agarwal that would teach or suggest correcting quantization indices and dequantizing the corrected quantization indices by multiplying the corrected quantization indices by a quantization step. That is, nothing in Agarwal teaches or suggests decoding an input code sequence to obtain quantization indices, selecting correction values for correcting the quantization indices, correcting the quantization indices using the selected correction values, in accordance with values of the quantization indices, computing products of the corrected quantization indices and a quantization step, and restoring an image signal by executing a predetermined inverse transform manipulation of the coefficient sequences generated as a result of the dequantization, as recited in Claim 1.

Accordingly, Claim 1 is believed to be patentable over Agarwal.

Independent Claims 11, 21, and 28 correspond to Claim 1, and are believed to be patentable for at least the same reasons as discussed above in connection with Claim 1.

A review of the other art of record has failed to reveal anything which, in Applicants' opinion, would remedy the deficiencies of the art discussed above, as references against the independent claims herein. Those claims are therefore believed patentable over the art of record.

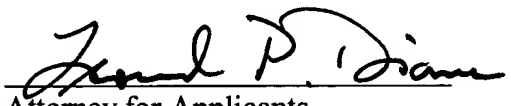
The other claims in this application are each dependent from one or another of the independent claims discussed above and are therefore believed patentable for the

same reasons. Since each dependent claim is also deemed to define an additional aspect of the invention, however, the individual reconsideration of the patentability of each on its own merits is respectfully requested.

In view of the foregoing amendments and remarks, Applicants respectfully request favorable reconsideration and early passage to issue of the present application.

Applicants' undersigned attorney may be reached in our New York office by telephone at (212) 218-2100. All correspondence should continue to be directed to our below listed address.

Respectfully submitted,



Attorney for Applicants

Registration No. 29,286

FITZPATRICK, CELLA, HARPER & SCINTO
30 Rockefeller Plaza
New York, New York 10112-3801
Facsimile: (212) 218-2200